CLAIMS

1. A substrate (100, 200) for receiving a plurality of samples that comprises:
- a plurality of substrate plates (11, 12, 13) arranged on top of one another as a stack (10), and
- an anchoring axis (20), to which the substrate plates (11, 12, 13) are connected.

2. The substrate according to Claim 1, in which each substrate plate (11, 12, 13) has a bearing bore (15) through which the anchoring axis (20) passes.

3. The substrate according to Claim 2, in which the substrate plates (11, 12, 13) have a rectangular shape and the bearing bore (15) is in each case provided in a corner of the substrate plates (11, 12, 13).

4. The substrate according to Claim 2 or 3, in which the bearing bore (15) of at least one of the substrate plates (11, 12, 13) has an insertion opening (16) on the edge for the lateral insertion of the anchoring axis (20) into the bearing bore (15).

5. The substrate according to Claim 4, in which the insertion opening (16) forms a collar opening (18) with a lesser width, relative to the diameter of the bearing bore (15), and the anchoring axis (20) has a thickness at least in partial sections of its length that is smaller than or equal to the width of the collar opening (18).

6. The substrate according to at least one of the preceding claims, in which the anchoring axis (20) has a projection (22) on its upper end.

7. The substrate according to at least one of the preceding claims, in which the anchoring axis (20) is rotatably arranged.

8. The substrate according to at least one of the preceding claims, in which the stack (10) contains at least one data storage device (50), a base plate (60) and/or a cover plate.

9. The substrate according to Claim 8, in which the base plate (60) contains a data memory (65).

10. The substrate according to Claim 8 or 9, in which the anchoring axis (20) is detachably connected to a lowest substrate plate (11) or to the base plate (60).

11. The substrate according to at least one of the preceding claims, in which at least one substrate plate (12) in the stack (10) can pivot about the anchoring axis (20).

12. The substrate according to at least one of the preceding claims, in which at least one substrate plate (11, 12, 13) in the stack (10) can be shifted vertically to the anchoring axis (20).

13. The substrate according to at least one of the preceding claims, in which the substrate plates (11, 12, 13) have engagement means (30) that block a lateral shifting of the substrate plates (11, 12, 13) at least in a direction vertically to a stack direction.

14. The substrate according to Claim 13, in which the engagement means (30) comprise at least one profile (31) on a lateral surface of a substrate plate (11, 12, 13) that cooperates with a complementary profile (32) on a lateral surface of an adjacent substrate plate (11, 12, 13).

15. The substrate according to Claim 13 or 14, in which the anchoring axis (20) can be transferred by a rotation from a lowered fix position, in which all substrate plates (11, 12, 13) in the stack (10) are mutually fixed, into a rotary position, in which the substrate plates (11, 12, 13) can be moved in accordance with a play in the direction of the stack and pivot about the anchoring axis, and/or be transferred into a release position in which at least one substrate plate (11, 12, 13) can be separated from the stack (10).

16. The substrate according to Claim 13, in which the engagement means (30) are formed by a positive-fit slide guide.

17. The substrate according to at least one of the preceding claims, in which the anchoring axis (20) comprises a one-piece rod (21) extending over the height of the stack (10).

18. The substrate according to Claims 17 and 5, in which the rod (21) has key surfaces (23) that form the partial sections with the thickness that is smaller than or equal to the width of the collar opening (18).

19. The substrate according to at least one of the preceding Claims 1 to 16, in which the anchoring axis (20) comprises a plurality of axis segments (26).

20. The substrate according to Claim 19, in which the axis segments (26) each comprise a cylindrical body with a height corresponding substantially to the thickness of the substrate plates (11, 12, 13) and with a diameter corresponding to the diameter of the bearing bores (15), complementary recesses (27) and protrusions (28) being provided on the top and bottom sides of the axis segments (26) that engage in the assembled stack (10) of substrate plates (11, 12, 13).

21. The substrate according to at least one of the preceding claims, in which the substrate plates (11, 12, 13) have a compartmental arrangement (40) with a plurality of sample reservoirs (41, 42, 43).

22. The substrate according to at least one of the preceding claims, in which at least one substrate plate (11) contains a data memory.

23. The substrate according to at least one of the preceding claims, in which the substrate plates consist of plastic.

24. The substrate according to at least one of the preceding claims, in which the substrate plates (11, 12, 13) have side lengths less than 10 cm.

25. A process for the cryopreservation of samples with a substrate according to at least one of the preceding claims, with the steps:
- storage of the samples on the substrate plates (11, 12, 13), and

- freezing of the substrate plates (11, 12, 13) in the compound of the stack (10).

26. The process according to Claim 25, in which the stack (10) of substrate plates (11, 12, 13) is formed before the storage of the samples.

27. The process according to Claim 25, in which the stack (10) of substrate plates (11, 12, 13) is formed after the storage of the samples.

28. The process according to one of Claims 25 to 27, in which individual substrate plates are pivoted and/or pushed out of the stack (10) in a frozen or thawed state.

29. The use of a substrate according to at least one of Claims 1 to 24 for storing liquid or particulate samples.

30. The use of a substrate according to at least one of Claims 1 to 24 for the preservation of biological samples at cryotemperatures.